

10 20 30 40 50 60
 TTAGCGCCAT TGCCATAGAG AGACCTCAGC CATCAATCAC TAGCACATGA TTGACAGACA 60
 GAGAATGGGA CTTTGGGCTT TGCCAATTCT GACACTTCCC ATGTATTGA CAGTTACGGA 120
 GGGCAGTAAA TCGTCTGGG GTCTGSAAAA TGAGGCTTTA ATTGTGAGAT GCCCCAAAG 180
 AGGACGCTCG ACTTATCCTG TGAATGGTA TTA CTCAGAT ACAAATGAAA GTATTCTAC 240
 CCAAAAAAAAA AAAAA 255

FIG. 1

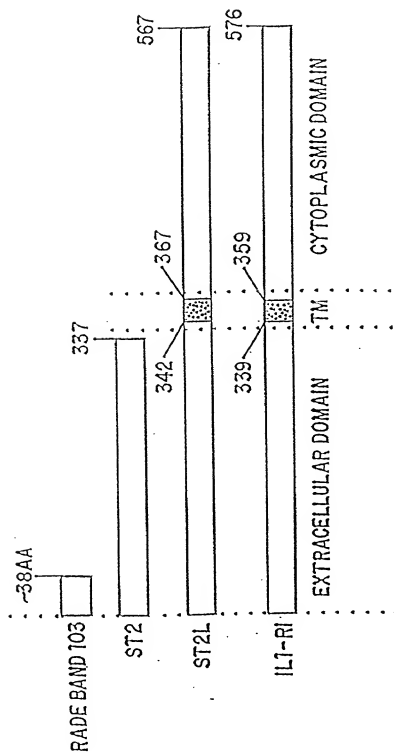


FIG. 2

1 atgattgaca gacagagaat gggactttgg gotttggcaa ttotgacact tccatgtat
 61 ttgacagtta cggaggggcag taaatgtcc tgggtgtctgg aaaatgaggc ttttaattgtg
 121 agatgcccc aaagaggacg ctgcacttat cctgtggaaat ggtatttact agatacaaat
 181 gaaagtattc ctactcaaaa aagaaatcgg atcttgtct caagagatcg tctgaagtgt
 241 ctaccagcca ggtcgaaga ctctgggatt tatgtctgtg ttatcagaag ccccaacttg
 301 aataagactg gatactgaa tgtaccata cataaaaagc cgccaagctg caatatccct
 361 gattatttga tgtactcgac agtacgttga tcagataaaa atttcaagat aagctgtcca
 421 acaattgacc tgtataattg gacagcaact gtacgttgtt ttaagaactg caaagctctc
 481 caagagccaa ggttcagggc acacaggctc tacttgttca ttgacaactg gactcatgat
 541 gatgaagggt actacacttg tcaattcaca cagcgggaga atggaaccaa ctacatcgtg
 601 acggccacca gatcaticac agttgaagaa aaaggctttt ctatgtttcc agtaattaca
 661 aatctccat acaaccacac aatggaagtg gaatalaggaa aaccagcaag tatgtcctgt
 721 tcagcttgct ttggcaagg ctctcacttc ttggtgtatg tctgtggca gattaacaaa
 781 acagtgttg gaaattttgg tgaagcaaga atcaagaag aggaagggtc naatgaaagt
 841 tccagcaatg acatggattg ttaacctca gtgttaagga taactgtgtg gacagaaaag
 901 gacctgtccc tggaaatga ctgtctggcc ctgaaccttc atggcatgat aaggcacacc
 961 ataaggctga gaaggaaaca accaagtaag gagtgcctct cacacattgc t

FIG. 3A

109070 00000000
MIDRQRMGLWALAILTPMYLTVTEGSKSSWGLENEALIVRCPQGRSTYPVEWYYS
TNESIPTQKRNRIFVSRDRLKFLPARVEDSGIYACVIRSPNLNKTGYLNVTHKKPPSCNIP
DYLMYSTVRGSDKNFKITCPTIDLYNWTAPVQWFKNCKALQEPRFRAHRSYLFDNVTH
DDEGDYTCQFTHAENGNYIVTATRSFTVEEKGFMSMFPVITNPPYNHTMEVEIGKPASIA
CSACFGKGSHFLADVLWQINKTVVGNFGEARIQEEEGRNESSNDMDCLTSVLRITGVT
BKDLSLEYDCLALNLHGMIRHTIRLRKQPSKECPSHIA

FIG. 3B

1 tgccttgcgc atagagagac ctcagccatc aatcactagc acatgattga cagacagaga
 61 atgggacttt gggctttggc aattctgaca ctcccatgtt atttgacagt tacggagggc
 121 agtaaatcgt cctggggctct ggaaaatgag gctttaattg tgagatgccc ccaaggaggga
 181 cgtcgcactt atcctgtgga atggtattac tcagatacaa atgaaagtat tccctactca
 241 aaaaagaatc ggatctttgt ctcaagagat cgtctgaagt ttctaccagc cagagtgagg
 301 gactctggga tttatgcttg tttatcaga agccccaact tgaataagac tggatcactg
 361 aactgcacca tacataaaaa gccgcgaagc tgcaaatatcc ctgattattt gatgtctctg
 421 acagtacgtg ctgacagataa aaatttcaag ataactgttc caacaattga cgtgtataat
 481 tgacagacgc ctgttcagtg gtttaagaac tgcaaatatcc tccaagagc agsgttcagg
 541 ggcacacagc cctacttgtt cattgacaac gtgactcatg atgataagg tgactactac
 601 tgtcaattca cacacgcgga gaattggaacc aactacatcg tgacggccac cagatcatte
 661 acagttgaag aaaaaggctt tcttatgttt ccagtaatta caaatccttc atacaaccac
 721 acagtgaag tggaaatgag aaaccagca agtattgcct gttcagcttg ctttggcgaa
 781 ggctctcact tcttggtgta tgcctgtggt cagatataca aaacagtagt tggaaatttt
 841 ggtgaagcaa gaattcaaga agagggaagt cgaaatgaaa gttccagcaa cagatggat
 901 tgttttaact cagtggttaag gataactggt gtgacagaaa aggacctgtc cttggaatat
 961 gactgtctgg cctggaacct tcatggcatg ataaggcaca ccaataaggct gagaaggaaa
 1021 caaccaattg atcacccgaag catctactac atagtgtcgt gatgtagttt attgctaagt
 1081 tttatcaatt gtttgggtat agtcttataa gtgtcttgga ttgagttgac ctgtctctg
 1141 agagataatg tgacacctta caaaaccggc aacgatggca agctctacga tgcctcatc
 1201 atttaccctc gggctcttcg gggcagcgcg cggggaaacc actctgtgga gtaacttgtt
 1261 caccacactc tgcgcgacgt tcttgaaaaa aaatgtggct acaaatgttg catttatggg
 1321 agagactcgt tacctgggca agatgcagcc agcgtgtggt aaagcagtat cagatattagc
 1381 agaagcagg tggtttgtct ggcctctcac atgatgcaca gcaaggaatt tgcctacgag
 1441 caggagattg cctctgcacag cgcctctcac cagaacaaat ccaaggtgat tcttattgaa
 1501 atggagcttc tgggtgaggg aagccgacta caggttgggg acctggaaga tctctccag
 1561 cactgttgta aaattcaggg gaccatcaag tggagggaag atcatgtggc gcgacagcag
 1621 tctctaatgt ccaaatcttg gaagcatgtg aggtaccaaa tgcgcagtgc agaaaagacc
 1681 tccaagacgg catctgttgc ggcctcgtg agtggaagg catgcttaga cctgaaacac
 1741 ttttgagttg agagctgcgg agtccagca gtaggcacg gagtgcaggt gtgcagactt
 1801 gaaatgccaa ggttgggggc cccaagtctc agctaaaagg caactctagt ttattttct
 1861 ggttatggta ggagccaccc atcgtttgtt tccggtttcc ttttctcat tcaacttctt
 1921 ggcacaaagt caacctgag ctttttccct tctttttatt tctctttttg tctctttctt
 1981 taaaaagctt ttaaaattga ttatcttatt ttctacctt tcaaaagttt tccactttcc
 2041 cgggtccccc tctcaaaatc cccatcctgc ttccctcttc cctgcttcta tgaggggtgc
 2101 cccccacctg cccatccact ccagccttacc aggccttgtg ttccctctta cctggggctg
 2161 gagctcccat aagacctccc ctctcatcca tcaattatct acattctgaa tatcaagcgc
 2221 acacttttgt tttgtttttt gattttttga gacagggttt ctctgtgta ttcctgtcag
 2281 cttgaactc acattgtaga ccaggctggc ctgaaactca gaaatcagcc tgcctctgcc
 2341 tccccagtg ctgggattaa aggcgtgcgc caccacgccc ggctaagcct acactttcag
 2401 aataaagctc tgattccact caaagagcag tctcatcccc agggcgagag agccggaaag
 2461 agcctccaat gtcgtgtccc aggcagagct gacctattt gcttaccagt cacaggttaa
 2521 caaagcgttt ctcctgtgtt cctctgtgat acatccctgt aatagattag gaaggggaag
 2581 agcctgttct ctgaccagtt tgtgaattgt ggtagaaaaa gcttgacgt ttgttaataa
 2641 cttgttagca atgtaaacct cattcctaac acaccagaat tctctacttt ttattgttca
 2701 attaccgagt ttgtcoaagt cagtattaac agatttggto gataacctta cccaatttgc
 2761 cattacagtc gagcatgttt tcagttctaa atgcctttta tatatttttt attcttctta
 2821 gaaatacttc ctacattttta aagtaattga aagatgtgtt agaaaaataa aggtgttaaga
 2881 gaagtagta taaaataata aaaaataatg aaaggaaagg aataataatg aaaaataata
 2941 cctcttaagt taatttttgt aggtctgtat tttaaaatat aattaaaatt tatcacgta
 3001 acctttatag ctgagattgt acactacaga ctaggcagct tttctacttt tttctacttt accacataa
 3061 tgaatactgg tggctgattt ctttaacatg cacagaagt t ccaaatgtct tatcttagac
 3121 ttgtcgtcag actatggcgt aagcagccag aatgagaac aggtctgcct gttccactag
 3181 ggactcctgc ctacttactg aatgttatct gtcaactgtgc gacagctaac ttttgttata
 3241 cctctatgaa atgtgtagg aatttggaca gaacagaatc aatctatagt cagaggtctc
 3301 ctggacagtc ttttccagga gcaacacagc accgtgaggt cctaggcacc cagggaacgc
 3361 attcagagcc caggcaagtg tcttacaggt accttgaatt ttgccaatg atatgagcc
 3421 tgccttagct gagttgctca gtcggtgatg ggactccagg ctgaggtgac aatgaacaca

FIG. 4A

00000000.070601

3481 gaatttggga gactcttgaa aggaggggaa tgttgaactc acgggtcaaca tatgaggctg
 3541 cagagaagcc gtagcgagaa gtgtgtgtag aggatctaga gtagcccggt tctctgggga
 3601 cagtggtgctc ttagtctgta cccttaggct ggggtgccag gtaaacattt gctagtgttc
 3661 agttcaaaag ctgaagcttg agctgagggt gatgaggaat tcaaaacttcc cctcgcatgc
 3721 atccaccctg tgggtgcctg gtttgctaag tccacctgct ctgctgtagt agaaggtttt
 3781 gatctttctgc agcttcatct acttcttagt gagttgccaa aactgaccac tgaaaagcat
 3841 gctgtgtaca taactgtctc atgtcccaga acgtgcaatc aggaggaagt cctcaactcc
 3901 gataacggaa tccttgctct gtggctgtga ggacgtccct tagcaacctc agatagtaat
 3961 ttttcttagg ttggatggaa catagtaacg tgctggattc ttgtctaaat gaaaatagaa
 4021 gtattcggat ttccagaaaga actggataaa tattaatggt ggtgattatg aaatctcatt
 4081 gtgagccgtg tgagtttgag tgtgtattcc atgattgtgc tgaatgaaga cctctaaaaa
 4141 tgaattcttc tccaatctca tccctgggaa tagttgcttc ctcattgcctg ctgtcccatc
 4201 catggaaaaa gactaaagag aattattatt tgttcccag atctctctga taagtctaaa
 4261 ctattttgat gtaattgagc tgggcagcat ggcaacttg ggaggcagag gcagggtggaat
 4321 ctctgtgagt ttgaggccag cctgctctac agagttagtt ccaggacacc agagctacaa
 4381 aaagaaaacc tgcctaaca acaacagcaa cagctgcagc agcaacaaca acaacaaga
 4441 aaagaaagag gaggaggagg aaagaaaaga aggaagaagg aagaagaag ggaagaaata
 4501 atagattttt ctgtaatgaa cacacatatg ctttgatgct ttgtctaaac tcaaaatatt
 4561 agtttttatt tactgttttg aaaggttcaa agcatgatcc atgtaaaaat gtctctctgt
 4621 gggctttctc ccatttctac ttttgttccc ctcatctctt caaagtgcct gtccaggcag
 4681 agctgacctt atttgcttac cagttaacagg taaacaagc gtttctcgt gttgcctctt
 4741 gtgacctctc ctgtattaga ttagggaagg aaggagccgt cctactgtcc agttttgtgag
 4801 ttctggtaga aagagtgttg aagtttgta aatgcttgtt ttccatgtat caaatgtta
 4861 tgcctttctc atttattatt gtatgacaaa ttattttca ctgggcaaaa ataattgtgc
 4921 cattgactcc ttgtgtgttt tcttcatgtg tgtttgaaga gttctagctt attaaaaaa
 4981 aaaatctag

FIG. 4A CONTD

MIDRQRMGLWALAILTLPMYLTVTEGSKSSWGLENEALIVRCPQQRGRSTYPVEWYYSD
TNESIPTQKRNRIFVSRDLKFLPARVEDSGIYACVIRSPNLNKTGYLNVTHKKPPSCNIP
DYLMYSTVRGSDKNFKITCPTIDLYNWTAPVQWFKNCKALQEPRFRAHRSYLFIDNVTH
DDEGDYTCQFTHAENGNTYIVTATRSFTVEEKGFSMFPPVITNPPYNHTMEVEIGKPASIA
CSACFGKGSHFLADVWLQINKTVVGNFGEARIQEBEGRNESSNDMDCLTSVLRITGVT
EKDLSLEYDCLALNLHGMIRHTIRLRKQPIDHRSIYYIVAGCSLLMFINVLVIVLKVFW
IEVALFWRDIVTPYKTRNDGKLYDAYITYPRVFRGSAAGTHSV EYFVHHTLPDVLENKC
GYKLCIYGRDLLPGQDAATVVESSIONSRRQVFVLAPHMMHSKEFAYEQEIALHSALIQ
NNSKVILIEMEPLGEASRLQVGDLDQSLQHLVKIQGTIKWREDHVADKQSLSSKFWKHV
RYQMPVPERASKTASVAAPLSGKACLDLKHf

FIG. 4B

1 aaagagagggc tggctgttgt atttagtaaa gctataaagc tgtaagagaa attggctttc
 61 tgagttgtga aactgtggggc agaaagtga ggaagaaaga actcaagtac aaccacaatga
 121 gggttgagata taggctactc ttcccaactc agtcttgaag agtatoacca actgcctcat
 181 gtgtgggtgac cttcactgtc gtatgccagt gactcatctg gagtaatctc aacaacgagt
 241 taccataact tgcctctgat tgataaacag aatgggggtt tggtacttag caattctcac
 301 aattctctatg tattccacag cagcaaaagt tagtaaacaa tcatggggcc tggaaaatga
 361 ggcttttaatt gtaagatgtc ctagacaagg aaaacctagt tacaccgtgg attgggtatta
 421 ctcacaaaca aacaaaagta ttcccactca ggaagaaat cgtgtgtttg cctcaggcca
 481 actctgaag tttctaccag ctgaagtgc tgattctggt atttatact gtattgtcag
 541 aagtcaccaca ttcaatagga ctggaatgc gaatgtcacc atataaaaa aacaatcaga
 601 ttgcaattgtt ccagattatt tgatgtattc aacagtatct ggatcagaaa aaaaatccaa
 661 aatttatgtt cctaccattg acctctacaa ctggacagca cctcttgagt gggttaagaa
 721 ttgtcaggct cttcaaggat caagggtacag ggcgacaaag tcatttttgg tcattgataa
 781 tgtgtgact gaggacggcag gtgattacac ctgtaaaatt atacacaatg aaaaatggagc
 841 caattatagt gtgacggcga ccaggctctc cagggtcaag gatgagcaag gettttctc
 901 gtttccagta atcgagccc ctgcacaaaa tgaaataaag gaagtggaaa ttggaaaaaa
 961 cgcacaaacta acttgcctcg aatggaacaa aaatcacaga cttgttttgg aaaaggcact cagtctctgg ctgccgtcct
 1021 gtggcagctt caaagttcca taattgtctga ggcttggtaa ccaagaattc aacaagagga
 1081 agggcaaat gaaagagatt gactaaagtag gactaaagtag gactaaagtag gactaaagtag gactaaagtag
 1141 tgaagtgaag caacagctaa gctagtatga gtgtatctttc aatgtcatatc aatgtcatatc aatgtcatatc
 1201 cttgagaagg gcaactgagg ccactctgct atgatgctta tgggtgtctac tgggtgtctac tgggtgtctac
 1261 ctgcaataat tggattgagg gctatgctct tagagcactt tggttaccag atttctgctg atttctgctg atttctgctg
 1321 aaaaatgttc ggcagctgtg ggcataacct tatgcattta tggggagagat gaggcaggcg gttgccctgc
 1381 taggaatgat ggaagctct atagcacttt acatacagaaa gaggcaggcg gttgccctgc gttgccctgc
 1441 tacagatggg ggcagctgtg ggcataacct tatgcattta tggggagagat gaggcaggcg gttgccctgc
 1501 aataaagtgt ggcataacct tatgcattta tggggagagat gaggcaggcg gttgccctgc
 1561 agtcactgca gtggaaccca acatacagaaa gaggcaggcg gttgccctgc gttgccctgc
 1621 cagatcactc cacaataaag agtttgccta tgagatggag gctctgagcg atgaaagtac agggggaccat
 1681 catccagaac gacgccaaag agtactctat ccagcatctt aattccaaat tctggaagca
 1741 gctgcaggct gaggcgcttc ttgccataaa aatgccaga aaggcctcta gtttgactcc
 1801 caagtggagg gaggaccaaa caaattgcctg tgccaagcaa aggtgctgct ggtgtgtgca
 1861 cgtgaggtac caaattgcctg tgccaagcaa aggtgctgct ggtgtgtgca aggtgtagga gggggaatat
 1921 cttggctgcc cagaagcaat agtgccctgt ggtcttatgcc cctgcactga aggtgtagga gggggaatat
 1981 ttctcagct tctcctagct ggtcttatgcc cctgcactga aggtgtagga gggggaatat
 2041 taaaggagatt caggccac

FIG. 5A

1 mgfwilailt ilmystaakf skqswglene alivrcprgg kpsytvdwyy sqtnksiptq
61 ernrvfasgq llkflpaeva dsgiytcivr sptfnrtgya nvtyykkqsd cnvpdylmys
121 tvsgseknsk iycptidlyn wtaplewfnk cgalqgsryr ahksflvidn vmtdedagdyt
181 ckfihnenga nysvtatrsf tvkdegqgfsl fpvigapaqn eikeveigkn anltcsacfg
241 kgtqflaavl wqlngtkitd fgepriqqee gqngsfsngl acldmvlria dvkeedlllq
301 ydclalnlhg lrrhtvrlsr knpidhhsy ciiavcsvfl mlinvlviil kmfwieatll
361 wrdiakpykt rndgklyday vvyprnykss tdgasrvehf vhgildvle nkcgyltciy
421 grdmlpgedv vtavetnirk srrhifiltp qithnkefay egevalhcal iqndakvili
481 emealseldm lqaalqdsi qhlmkvgtti kwredhiank rslnskfwkh vryqmpvpvpsk
541 iprkassltl laaqkq

FIG. 5B

1 atctcaacaa cgagttacca atacttgctc ttgattgata aacagaatgg gggtttggat
 61 cttagcaatt ctcaacaattc tcatgtattc cacagcagca aagtttagta aacaatcatg
 121 gggcctggaa aatgaggett taattgtaag atgtcctaga caaggaaaaac ctagtctacac
 181 cgtggattgg tattactcac aaacaaacaa aagtattccc actcaggaaa gaaatcgtgt
 241 gtttgctca ggccaacttc tgaagtttct accagctgaa gttgctgatt ctggtattta
 301 tacctgtatt gtcagaagtc ccacattcaa taggactgga tatgcgaatg tcaccatata
 361 taaaaaacaa tcagattgca atgttccaga ttatttgatg tattcaacag tatctggatc
 421 agaaaaaaat tccaaaattt attgtcctac cattgacctc tacaactgga cagcacctct
 481 tgagtgggtt aagaattgtc aggcctctca aggatcaagg tacaggcgcg acaagtcatt
 541 tttggctcatt gataatgtga tgaactgagga cgcaggtgat tacacctgta aatttataca
 601 caatgaaaat ggagccaatt atagtgtgac ggcgaccagg tccttcacgg tcaaggatga
 661 gcaaggcttt tctctgttcc cagtaatcgg agcccctgca caaaatgaaa taagggaagt
 721 ggaaattgga aaaaacgcaa acctaacctg ctctgcttgt ttgggaaaag gcactcagtt
 781 cttggctgcc gtctgtgggc agcttaatgg aacaaaaatt acagactttg gtgaaccaag
 841 aattcaacaa gaggaagggc aaatcaaat ttcagcaat gggctggctt gtctagacat
 901 ggttttaaga atagctgacg tgaaggaaaga ggatttattg ctgcagtacg actgtctggc
 961 cctgaatttg catggcttga gaaggcacac cgtaagacta agtaggaaaa atccaagtaa
 1021 ggagtgtttc tgagactttg atcacctgaa ctttctctag caagtgtgaa cagaatggag
 1081 tgtggttcca agagatccat caagacaatg ggaatggcct gtgccataaa atgtgcttct
 1141 cttctctcgg atgttgtttg ctgtctgac tttgtagact gttcctggtt gctgggagct
 1201 tctctgtcgc ttaaatgtt cgtcctcccc cactccctcc tatcgttggt ttgtctagaa
 1261 cactcagctg ettccttgggt catccttgtt ttctaacttt atgaactccc tctgtgtcac
 1321 tgtatgtgaa aggaaatgca ccaacaacg aaaaactg

FIG. 6A

MGFWILAILTILMYSTAAKFSKQSWGLENEALIVRCPRQGKPSYTVDW
YYSQTNKSIPTQERNRVFASGQLLKFLPAEVADSGIYTCIVRSPTFNRT
GYANVTIYKKQSDCNVPDYLMYSTVSGSEKNSKIYCTIDLYNWTAPL
EWFKNQALQGSRYRAHKSFLVIDNVMTEDAGDYTCCKFIHNENGAN
YSVTATRSFTVKDEQGFSLFPVIGAPAQNEIKEVEIGKNANLTCSACFG
KGTQFLAAVLWQLNGKITDFGEPRIQQEEGQNSFSNGLACLDML
RIADVKEEDLLLQYDCLALNLHGLRRHTVRLSRKNPSKECF

FIG. 6B

1 cttagctccg tcaactgactc caagttccatc cctctgtct ttcagtttg ttgagatata
 61 gggtactctt cccaactcag tcttgaagag tatcaccacac tgcctcatgt gtggtagacct
 121 tcaactgtgt atgccagtga ctcatctgga gtaattctcaa caacgagtta ccaactctg
 181 ctcttgattg ataaacagaa tgggggtttg gatcttagca attctcaaaa ttctcatgta
 241 ttccacagca gcaaaagtta gtaacaatc atggggcctg gaaaatgagg cttaattgt
 301 aagatgtctt agacaaggaa aacctagtta caccgtggat tgggtattact cacaaacaaa
 361 caaaagtatt cccactcagg aaagaaatcg tgtgttgcc tcaggccgac ttctgaagt
 421 tctaccagct gaagtgtctg attctggat ttatactgt attgtcagaa gtccacatt
 481 caataggact ggaatgcga atgtcaccat atataaaaa caatcagatt gcaattgtcc
 541 agattatttg atgtattcaa cagtatctgg atcagaaaa aattccaaaa ttattgttcc
 601 taccattgac ctctacaact ggacagcacc tcttgagtgg tttagaatt gtccaggtct
 661 tcaaggatca aggtacaggc cgcacaagtc attttgtgct attgataatg tgatgactga
 721 ggacgcaggt gattacacct gtaaatttat acacaatgaa aatggagcca attatagtgt
 781 gacggcagcc aggtccttca cggtcagggt ttggtgtcag agtttctgca aattaaaaaa
 841 gagcttaatc tttagtaata ctcatggat tcaaatgcta atgagaggct ttgtgatggt
 901 atactatggt gtacataaat gttgtcgagt ggtttttaat ctttgtttgc aatactttca
 961 acatcatcaa tggccttgaa tgagcaaggc ttttctctgt ttccagtaat cggagccct
 1021 gcaaaaaatg aaataaagga agtggaattt ggaaaaaacg caaacctaac ttgctctgt
 1081 tgttttggaa aaggcactca gttcttgctt gccgtcctgt ggcaacttaa tggaaacaaa
 1141 attacagact ttggtgaacc aagaattcaa caagaggaa ggcaaaatca aagtttcagc
 1201 aatgggctgg ctgtctaga catggtttta agaatagctg acgtgaagga agagatttta
 1261 ttgctgcagt acgactgtct ggccctgaat ttgcatggct tgagaaggca caccgtaaga
 1321 ctaagtagga aaaatccaag taaggagtgt tctcgagact ttgatcact gaactttctc
 1381 tagcaagtgt aagcagaatg gagtgtggtt ccaagagatc catcaagaca atgggaatgg
 1441 cctgtgccat aaaatgtgct tctctctctc gggatgttgt ttgctgtctg atctttgtag
 1501 actgttctct tttgtggga gcttctctgc tgcctaaatt gtcgtctctc ccccaactcc
 1561 tctatctgtt ggtttgtcta gaacactcag ctgcttcttt ggtcatcctt gttttccaac
 1621 tttatgaact cctctgtgt cactgtatgt gaaaggaat gcaccaacaa ccgaaaactg

FIG. 7A

1 mgfwilailt ilmystaakf skqswglene alivrcprqg kpsytdvwy sqtnksiptq
61 ernrvfasgr llkflpaeva dsgiytcivr sptfnrtgya nvtiyykkgsd cnvpdylmys
121 tvsgseknsk iycptidlyn wtaplewfn cgalqgsryr ahksflvidn vmteadagdyt
181 ckfihnenga nysvtatrsf tvkvwcgsfc klkkslifsn thwiqslmrg fvmvyygvhk
241 cervvfnlcl qyfghhqw

FIG. 7B

GTCGACCCACGCGTCCGCCACGCGTCCGCTGGAGTAATCTCAACAACAGGTTACCAATACTTGCTCTTGATTGATATAA	79
M G F W I L A I L T I L M Y S T A A	18
CAGA ATG GGG TTT TGG ATC TTA GCA ATT CTC ACA ATT CTC ATG TAT TCC ACA GCA GCA	137
K F S K Q S W G L E N E A L I V R C P R	38
AAG TTT AGT AAA CAA TCA TGG GGC CTG GAA AAT GAG GCT TTA ATT GTA AGA TGT CCT AGA	197
Q G K P S Y T V D W Y Y S Q T N K S I P	58
CAA GGA AAA CCT AGT TAC ACC GTG GAT TGG TAT TAC TCA CAA ACA AAC AAA AGT ATT CCC	257
T Q E R N R V F A S G Q L L K F L P A A	78
ACT CAG GAA AGA AAT CGT GTG TTT GCC TCA GGC CAA CTT CTG AAG TTT CTA CCA GCT GCA	317
V A D S G I Y T C I V R S P T F N R T G	98
GTT GCT GAT TCT GGT ATT TAT ACC TGT ATT GTC AGA AGT CCC ACA TTC AAT AGG ACT GGA	377
Y A N V T I Y K K Q S D C N V P D Y L M	118
TAT GCG AAT GTC ACC ATA TAT AAA AAA CAA TCA GAT TGC AAT GTT CCA GAT TAT TTG ATG	437
Y S T V S G S E K N S K I Y C P T I D L	138
TAT TCA ACA GTA TCT GGA TCA GAA AAA AAT TCC AHA ATT TAT TGT CCT ACC ATT GAC CTC	497
Y N W T A P L E W E K M S K A F L C F Q	158
TAC AAC TGG ACA GCA CCT CTT GAG TGG TTT AAG ATG AGC AAG GCT TTT CTC TGT TGT CAG	557
TAA	560
TCGGAGCCCTGCACAAAATGAAATAAGGAAGTGGAAATTGGCACTCAGTTCTTGGCTGCCGCTCTGTGGCAGCTTAA	639
TGGAACAAAANTTACAGACTTTGGTGAACCAAGAATTCAACAAGAGGAAGGGCAAAATCAAAGTTTCAGCAATGGGCTG	718
GCTTGCTAGACATGGTTTTTAAGAATAGCTGACGTGAAGGAAGAGGATTTATTGCTGCAGTACGACTGTCTGGCCCTGA	797
ATTTCGATGGCTTGAGAAGGCACACCGTAAGACTAAGTAGGAAAAATCCAAGTAAGGAGTGTTTCTGAGACTTTGATCA	876
CCTGAACCTTCTCTAGCAAGTGTAAAGCAGAATGGAGTGTGGTTCCAAAGAGATCCATCAAGACAATGGGAATGGCCCTGTG	955
CCATAAAATGTGCTTCTCTCTCGGGATGTTGTTTGCTGTCTGATCTTTGTAGACTGTTCTGTGTTGCTGGGAGCTTC	1034
TCTGCTGCTTAAATTTGTCGCTCCCTCCCTCTATCGTTGGTTTGCTAGAACACTCAGCTGCTTCTTTGGTC	1113
ATCCTTGTTTCTTAACCTTTATGAACCTCCCTCTGTGCTACTGTATGTGAAGGAAATGACCAACAACCGTAARAAAAA	1192
AAAAAAGGGCGGCGCT	1210

FIG. 8

P14719	MIDRQRMGLW	ALAILTLPMY	LTVTEGSKSS	WGLENEALIV	RCPQGRSTY
S29498	MIDRQRMGLW	ALAILTLPMY	LTVTEGSKSS	WGLENEALIV	RCPQGRSTY
P14719	PVEWYSDTN	ESIPTQKRNR	IFVSRDLKF	LPARVEDSGI	YACVIRSPNL
S29498	PVEWYSDTN	ESIPTQKRNR	IFVSRDLKF	LPARVEDSGI	YACVIRSPNL
P14719	NKTGYLNVTI	HKKPPSCNIP	DYLMYSTVRG	SDKNFKITCP	TIDLYNWTAP
S29498	NKTGYLNVTI	HKKPPSCNIP	DYLMYSTVRG	SDKNFKITCP	TIDLYNWTAP
P14719	VQWFKNCAL	QEPRFRAHRS	YLFIDNVTHD	DEGDYTCQFT	HAENGNTYIV
S29498	VQWFKNCAL	QEPRFRAHRS	YLFIDNVTHD	DEGDYTCQFT	HAENGNTYIV
P14719	TATRSFTVEE	KGFSMFPVIT	NPPYNHTEV	EIGKPASIAC	SACFGKGSHF
S29498	TATRSFTVEE	KGFSMFPVIT	NPPYNHTEV	EIGKPASIAC	SACFGKGSHF
P14719	LADVLWQINK	TVVGNFGEAR	IQEEBGRNES	SNDMDCLTS	VLRTGVTEK
S29498	LADVLWQINK	TVVGNFGEAR	IQEEBGRNES	SNDMDCLTS	VLRTGVTEK
P14719	DLSLEYDCLA	LNLHGMIRHT	IRLRKQBSK	ECPSHIA...	.....
S29498	DLSLEYDCLA	LNLHGMIRHT	IRLRKQBSK	HRSIYYIVAG	CSLLMPINV
P14719	.....	.....	.....	.....	.....
S29498	LVIVLKVFWI	EVALFWRDIV	TPYKTRNDGK	LYDAYIYPR	VFRGSAAGTH
P14719	.....	.....	.....	.....	.....
S29498	SVEYFVHHTL	PDVLENKCGY	KLCIYGRDLL	PGQDAATVVE	SSIQNSRRQV
P14719	.....	.....	.....	.....	.....
S29498	FVLAPHMMHS	KEFAYEQEIA	LHSALIQNNS	KVILIEMEPL	GEASRLQVGD
P14719	.....	.....	.....	.....	.....
S29498	LQDSLQHLVK	IQGTIKWRED	HVADKQSLSS	KFWKHVRYQM	PVPERASKTA
P14719	.....	.....	.....	.....	.....
S29498	SVAAPLSGKA	CLDLKHF	.....	.....	.....

FIG. 9

BAA82405	MGFWILAILT	ILMYSTAARF	SKQSGWLENE	ALIVRCPRQG	KPSYTVDMYY
BAA02233	MGFWILAILT	ILMYSTAARF	SKQSGWLENE	ALIVRCPRQG	KPSYTVDMYY
Athdc120c9	MGFWILAILT	ILMYSTAARF	SKQSGWLENE	ALIVRCPRQG	KPSYTVDMYY
BAA85894	MGFWILAILT	ILMYSTAARF	SKQSGWLENE	ALIVRCPRQG	KPSYTVDMYY
BAA82405	SQTNKSIPTQ	ERNRVFASGO	LLKFLPAEVA	DSGIYTCIVR	SPTFNRTGYA
BAA02233	SQTNKSIPTQ	ERNRVFASGO	LLKFLPAEVA	DSGIYTCIVR	SPTFNRTGYA
Athdc120c9	SQTNKSIPTQ	ERNRVFASGO	LLKFLPAEVA	DSGIYTCIVR	SPTFNRTGYA
BAA85894	SQTNKSIPTQ	ERNRVFASGR	LLKFLPAEVA	DSGIYTCIVR	SPTFNRTGYA
BAA82405	NVTIYKKQSD	CNVPDYLMYS	TVSGSEKNSK	IYCPTIDLIN	WTAPLEWFKN
BAA02233	NVTIYKKQSD	CNVPDYLMYS	TVSGSEKNSK	IYCPTIDLIN	WTAPLEWFKN
Athdc120c9	NVTIYKKQSD	CNVPDYLMYS	TVSGSEKNSK	IYCPTIDLIN	WTAPLEWFKN
BAA85894	NVTIYKKQSD	CNVPDYLMYS	TVSGSEKNSK	IYCPTIDLIN	WTAPLEWFKN
BAA82405	COALQGSRYR	AHKSFLVIDN	VMTEADAGDIT	CKFIHNENGA	NYSVTIATRSF
BAA02233	COALQGSRYR	AHKSFLVIDN	VMTEADAGDIT	CKFIHNENGA	NYSVTIATRSF
Athdc120c9	COALQGSRYR	AHKSFLVIDN	VMTEADAGDIT	CKFIHNENGA	NYSVTIATRSF
BAA85894	COALQGSRYR	AHKSFLVIDN	VMTEADAGDIT	CKFIHNENGA	NYSVTIATRSF
BAA82405	TVK.....	DEQGSFLFPV	IGAPAQNEIK	EVEIGNANL	TCSACFGKGT
BAA02233	TVK.....	DEQGSFLFPV	IGAPAQNEIK	EVEIGNANL	TCSACFGKGT
Athdc120c9	TVK.....	DEQGSFLFPV	IGAPAQNEIK	EVEIGNANL	TCSACFGKGT
BAA85894	TVK.....	DEQGSFLFPV	IGAPAQNEIK	EVEIGNANL	TCSACFGKGT
BAA82405	OFLAAVLWQL	NGTKITDFGE	PRIQOEEGQN	QSFENGLACL	DMVLRADVK
BAA02233	OFLAAVLWQL	NGTKITDFGE	PRIQOEEGQN	QSFENGLACL	DMVLRADVK
Athdc120c9	OFLAAVLWQL	NGTKITDFGE	PRIQOEEGQN	QSFENGLACL	DMVLRADVK
BAA85894	OFLAAVLWQL	NGTKITDFGE	PRIQOEEGQN	QSFENGLACL	DMVLRADVK
BAA82405	EDLLLLQYDC	LALNHLGLRR	HTVRLSRKMP	IDHHSIYCII	AVCSVFLMI
BAA02233	EDLLLLQYDC	LALNHLGLRR	HTVRLSRKMP	IDHHSIYCII	AVCSVFLMI
Athdc120c9	EDLLLLQYDC	LALNHLGLRR	HTVRLSRKMP	IDHHSIYCII	AVCSVFLMI
BAA85894	EDLLLLQYDC	LALNHLGLRR	HTVRLSRKMP	IDHHSIYCII	AVCSVFLMI
BAA82405	NVLVILIKMF	WIEATLLARD	IAPYKTRND	GKLYDAYVYV	PRNYKSSDTG
BAA02233	NVLVILIKMF	WIEATLLARD	IAPYKTRND	GKLYDAYVYV	PRNYKSSDTG
Athdc120c9	NVLVILIKMF	WIEATLLARD	IAPYKTRND	GKLYDAYVYV	PRNYKSSDTG
BAA85894	NVLVILIKMF	WIEATLLARD	IAPYKTRND	GKLYDAYVYV	PRNYKSSDTG
BAA82405	ASRVEHFVHQ	ILPDVLEKNC	GYTLCIYGRD	MLPGEDUVTA	VETNIRKSR
BAA02233	ASRVEHFVHQ	ILPDVLEKNC	GYTLCIYGRD	MLPGEDUVTA	VETNIRKSR
Athdc120c9	ASRVEHFVHQ	ILPDVLEKNC	GYTLCIYGRD	MLPGEDUVTA	VETNIRKSR
BAA85894	ASRVEHFVHQ	ILPDVLEKNC	GYTLCIYGRD	MLPGEDUVTA	VETNIRKSR
BAA82405	HIFILTPOIT	HNKEFAYEQE	VALHCALIQN	DAKVILIEME	ALSELDMLQA
BAA02233	HIFILTPOIT	HNKEFAYEQE	VALHCALIQN	DAKVILIEME	ALSELDMLQA
Athdc120c9	HIFILTPOIT	HNKEFAYEQE	VALHCALIQN	DAKVILIEME	ALSELDMLQA
BAA85894	HIFILTPOIT	HNKEFAYEQE	VALHCALIQN	DAKVILIEME	ALSELDMLQA
BAA82405	EALQDSLOHL	MKVQGTIKMR	EDHIANKRSL	NSKFWKHVRY	QMPVPSKIPR
BAA02233	EALQDSLOHL	MKVQGTIKMR	EDHIANKRSL	NSKFWKHVRY	QMPVPSKIPR
Athdc120c9	EALQDSLOHL	MKVQGTIKMR	EDHIANKRSL	NSKFWKHVRY	QMPVPSKIPR
BAA85894	EALQDSLOHL	MKVQGTIKMR	EDHIANKRSL	NSKFWKHVRY	QMPVPSKIPR
BAA82405	KASSLTPLAA	OKQ			
BAA02233	KASSLTPLAA	OKQ			
Athdc120c9	KASSLTPLAA	OKQ			
BAA85894	KASSLTPLAA	OKQ			

FIG. 10

P14719	MIDRQRMGLW	ALAILTLPMY	LTVTEGSKSS	WGLENEALIV	RCPQGRSTY
S29498	MIDRQRMGLW	ALAILTLPMY	LTVTEGSKSS	WGLENEALIV	RCPQGRSTY
BAA82405	.....MGFW	ILAILTILMY	STAAKFSKOS	WGLENEALIV	RCPRQGKPSY
BAA02233	.....MGFW	ILAILTILMY	STAAKFSKOS	WGLENEALIV	RCPRQGKPSY
Athdc120c9	.....MGFW	ILAILTILMY	STAAKFSKOS	WGLENEALIV	RCPRQGKPSY
BAA85894	.....MGFW	ILAILTILMY	STAAKFSKOS	WGLENEALIV	RCPRQGKPSY
P14719	PVEWYYSQTN	ESIPTQKRN	IFVSRDLKF	LPAVEDSGI	YACVIRSPNL
S29498	PVEWYYSQTN	ESIPTQKRN	IFVSRDLKF	LPAVEDSGI	YACVIRSPNL
BAA82405	TVDWYYSQTN	KSIPTEERNR	VFASGQLLK	LPAEVADESGI	YTCIVRSPTF
BAA02233	TVDWYYSQTN	KSIPTEERNR	VFASGQLLK	LPAEVADESGI	YTCIVRSPTF
Athdc120c9	TVDWYYSQTN	KSIPTEERNR	VFASGQLLK	LPAEVADESGI	YTCIVRSPTF
BAA85894	TVDWYYSQTN	KSIPTEERNR	VFASGQLLK	LPAEVADESGI	YTCIVRSPTF
P14719	NKTGYLANVTI	HKKPPSCNIP	DYLMYSTVRG	SDKNFKITCP	TIDLYNWTAP
S29498	NKTGYLANVTI	HKKPPSCNIP	DYLMYSTVRG	SDKNFKITCP	TIDLYNWTAP
BAA82405	NRTGYANVTI	YKKQSDCNVP	DYLMYSTVSG	SEKNSKIYCP	TIDLYNWTAP
BAA02233	NRTGYANVTI	YKKQSDCNVP	DYLMYSTVSG	SEKNSKIYCP	TIDLYNWTAP
Athdc120c9	NRTGYANVTI	YKKQSDCNVP	DYLMYSTVSG	SEKNSKIYCP	TIDLYNWTAP
BAA85894	NRTGYANVTI	YKKQSDCNVP	DYLMYSTVSG	SEKNSKIYCP	TIDLYNWTAP
P14719	VONFKNCKAL	QEPFRFRAHRS	YLPIDNVTHD	DEGDYTCQFT	HAENGNTYIV
S29498	VONFKNCKAL	QEPFRFRAHRS	YLPIDNVTHD	DEGDYTCQFT	HAENGNTYIV
BAA82405	LEWFKNCQAL	QGSRYRAHKS	FLVIDNVMT	DAGDYTCCKFI	HNENGANYSV
BAA02233	LEWFKNCQAL	QGSRYRAHKS	FLVIDNVMT	DAGDYTCCKFI	HNENGANYSV
Athdc120c9	LEWFKMSKAF	LCFQ.....	.....	.....	.....
BAA85894	LEWFKNCQAL	QGSRYRAHKS	FLVIDNVMT	DAGDYTCCKFI	HNENGANYSV
P14719	TATRSFTVE.	.....EKG	FSMEFPVITNP	PYNHIMEVEI	GKPASIACSA
S29498	TATRSFTVE.	.....EKG	FSMEFPVITNP	PYNHIMEVEI	GKPASIACSA
BAA82405	TATRSFTVK.	.....DEQG	PSLFPPVIGAP	AQNEIKEVEI	GKNANLTCSA
BAA02233	TATRSFTVK.	.....DEQG	PSLFPPVIGAP	AQNEIKEVEI	GKNANLTCSA
Athdc120c9	.....	.....	.....	.....	.....
BAA85894	TATRSFTVKV	WCQSFCKLKK	SLIPSNTHWI	QSLMRGPFVMV	YGVHKKCCRV
P14719	CFGKGSHEFLA	DVLWQINKTV	VGNFGEARIQ	EEEGNESSSS	NMDMCLTSVL
S29498	CFGKGSHEFLA	DVLWQINKTV	VGNFGEARIQ	EEEGNESSSS	NMDMCLTSVL
BAA82405	CFGKGTOFLA	AVLWQLNGTK	ITDFGEPRIQ	QEEGQNSQFS	NGLACLDMVL
BAA02233	CFGKGTOFLA	AVLWQLNGTK	ITDFGEPRIQ	QEEGQNSQFS	NGLACLDMVL
Athdc120c9	.....	.....	.....	.....	.....
BAA85894	VFNLCLOYPQ	HHQWP.....	.....	.....	.....
P14719	RITGVTEKDL	SLEYDCLALN	LHGMIRHTIR	LRRKQPSKEC	PSHIA.....
S29498	RITGVTEKDL	SLEYDCLALN	LHGMIRHTIR	LRRKQPIDHR	SIYIVAGGCS
BAA82405	RIADVKEEDL	LLQYDCLALN	LHGLRHTTVR	LSRKNPIDHH	SIYCIIVAGCS
BAA02233	RIADVKEEDL	LLQYDCLALN	LHGLRHTTVR	LSRKNPIDHH	SIYCIIVAGCS
Athdc120c9	.....	.....	.....	.....	.....
BAA85894	.....	.....	.....	.....	.....

FIG. 11

P14719	.....	.....	.....	.....	.....
S29498	LLLMFINVLV	IVLKVEWIEV	ALFWRDIVTP	YKTRNDGKLY	DAYIIPRVF
BAA82405	VFLMLINVLV	IILKMEWIEA	TLLWRDIAKP	YKTRNDGKLY	DAYVVYPNY
BAA02233	.....	.....	.....	.....	.....
Athdc120c9	.....	.....	.....	.....	.....
BAA85894	.....	.....	.....	.....	.....

P14719	.....	.....	.....	.....	.....
S29498	RGSAAGTHSV	EYFVHHTLPD	VLENKCGYKL	CIYGRDLLPG	QDAATVVESS
BAA82405	KSSTDGASRV	EHFVHQILPD	VLENKCGYTL	CIYGRDMLPG	EDVVTAVETN
BAA02233	.....	.....	.....	.....	.....
Athdc120c9	.....	.....	.....	.....	.....
BAA85894	.....	.....	.....	.....	.....

P14719	.....	.....	.....	.....	.....
S29498	IQNSRRQVVF	LAPHMMHSKE	FAYEQEIALH	SALIQNNSKV	ILIEMEPLGE
BAA82405	IRKSRRHIFI	LTPQITHNKE	FAYEQEVALH	CALIQNDAKV	ILIEMEALSE
BAA02233	.....	.....	.....	.....	.....
Athdc120c9	.....	.....	.....	.....	.....
BAA85894	.....	.....	.....	.....	.....

P14719	.....	.....	.....	.....	.....
S29498	ASRLQVGDLO	DSLQHLVKIQ	GTIKWREDHV	ADKQSLSSKF	WKHVRYQMPV
BAA82405	LDMLQAEALQ	DSLQHLMKVQ	GTIKWREDHI	ANKRSLNSKF	WKHVRYQMPV
BAA02233	.....	.....	.....	.....	.....
Athdc120c9	.....	.....	.....	.....	.....
BAA85894	.....	.....	.....	.....	.....

P14719	.....	.....	.....
S29498	PERASKTASV	AAPLSGKACL	DLKHF
BAA82405	PSKIPRKASS	LTPLAAQKQ.	.....
BAA02233	.....	.....	.....
Athdc120c9	.....	.....	.....
BAA85894	.....	.....	.....

FIG. 11 CONT'D.

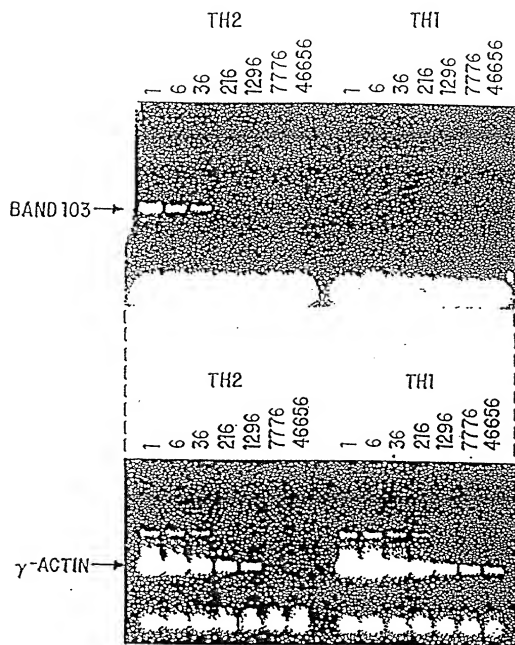


FIG. 12

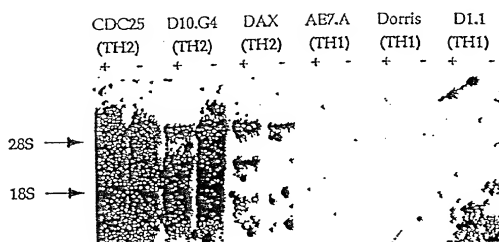


FIG. 13

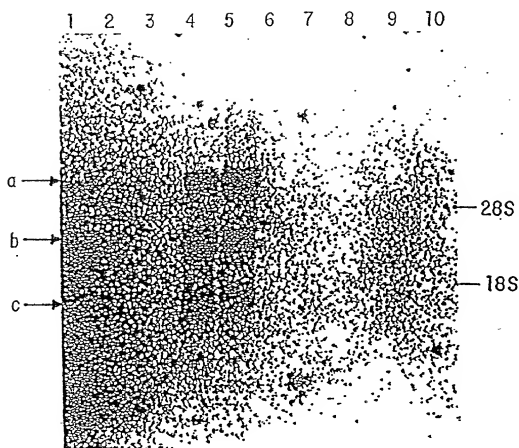


FIG. 14

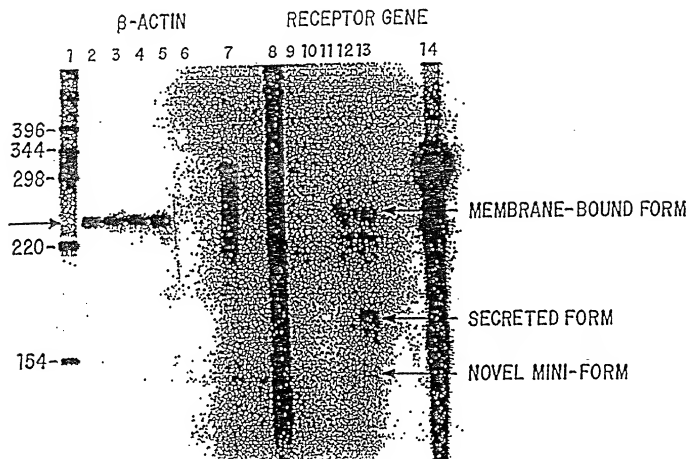


FIG. 15

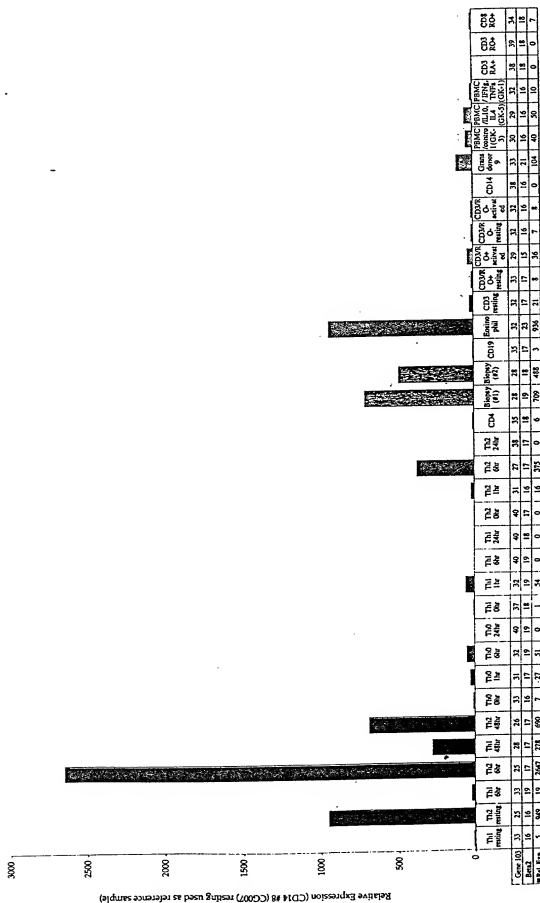
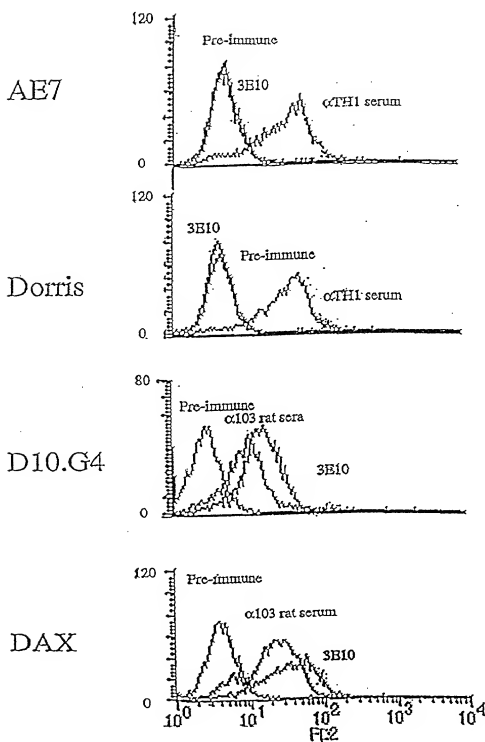


FIG. 16



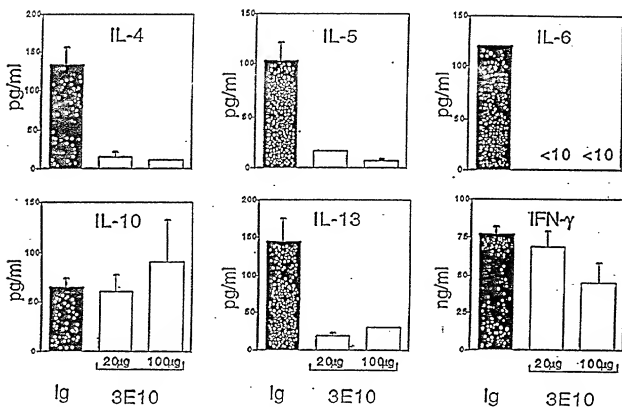


FIG. 18

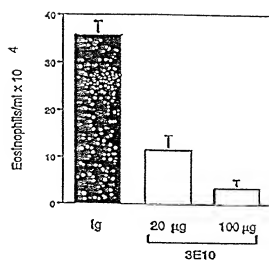


FIG. 19A

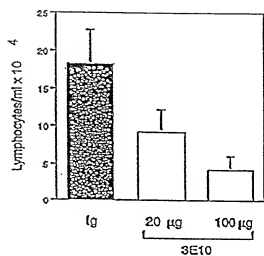


FIG. 19B

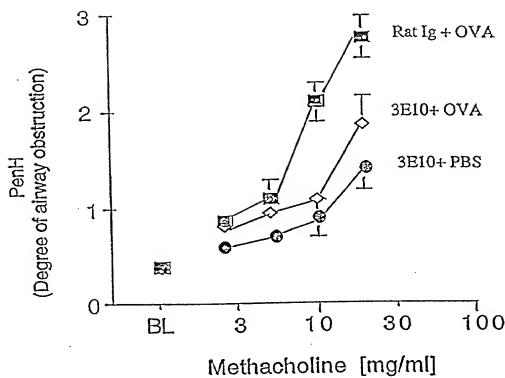


FIG. 20

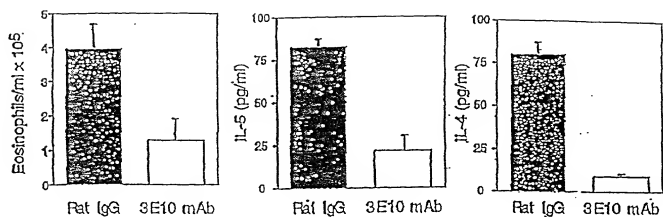


FIG. 21A

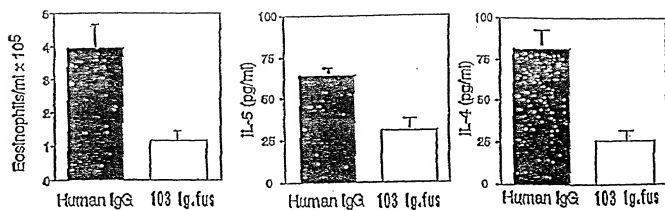


FIG. 21B

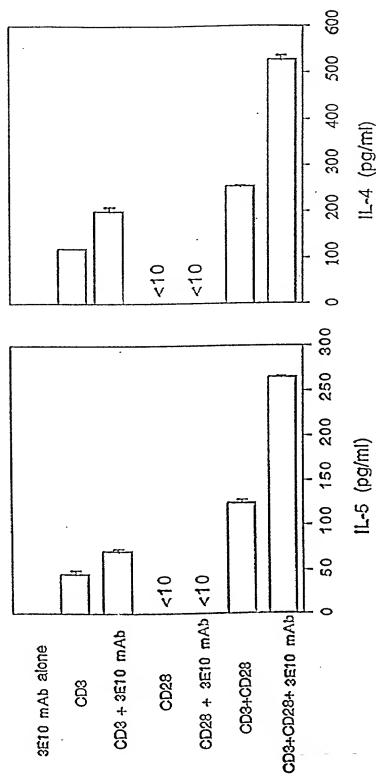


FIG. 22

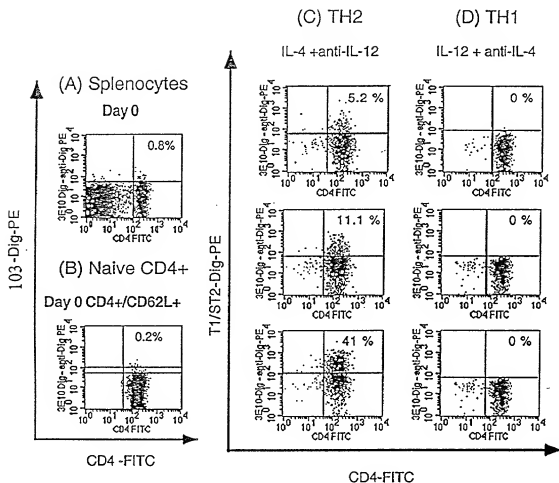


FIG. 23

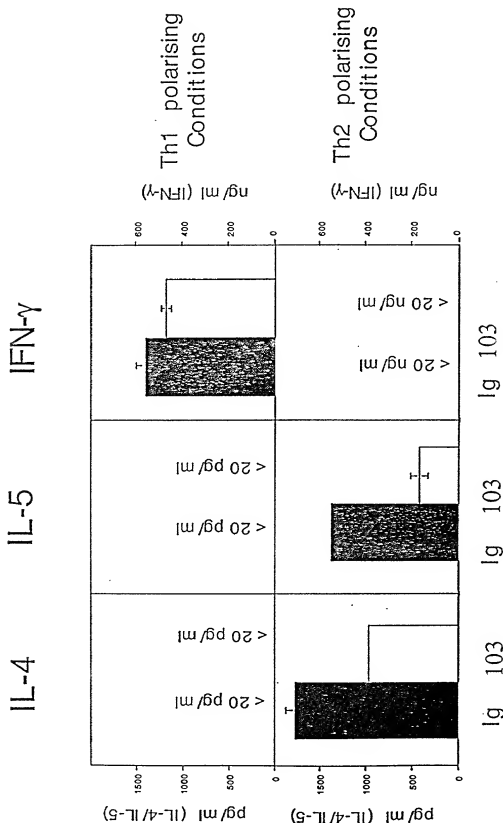


FIG. 24

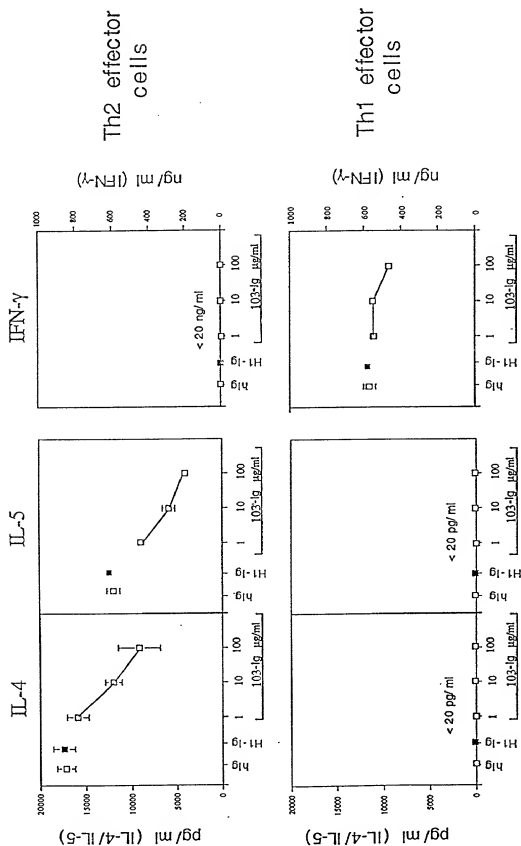


FIG. 25

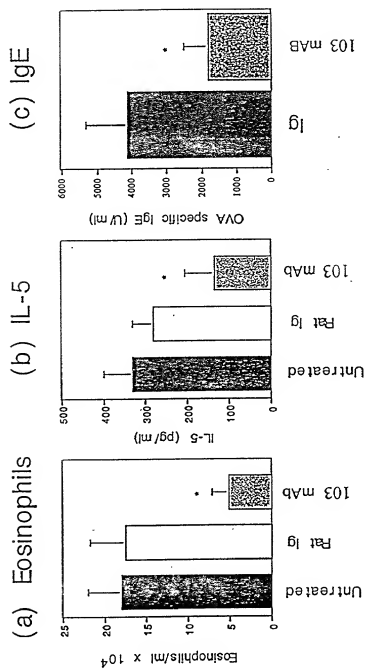


FIG. 26